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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/905,815 | 07/16/2001 | Ka Ming Wu | NA01-001 | 3653 |
| 28112 | 7590 | 11/29/2004 | EXAMINER | |
| GEORGE O. SAILE & ASSOCIATES 28 DAVIS AVENUE POUGHKEEPSIE, NY 12603 | | | NGUYEN, QUYNH H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2642 | |

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,815

Applicant(s)

WU ET AL.

Examiner

Quynh H Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oura et al. Pub. No. US 2003/0007556 in view of Koyama (U.S. Patent 6,240,210).

Regarding claims 1, 10, 16, and 22, Oura et al. teach a wireless audio transmission and reception system (page 2, 90032] and page 4, [0050]) comprising: a encoder to receive an analog signal, to digitize the analog signal (page 4, [0050]); a modulator to receive the digitized analog signal and to modulate a carrier frequency with the digitized analog signal ([page 4, [0051]); a transmitter to transfer modulated carrier signal wirelessly (page 4, [0051]-[0052]); a receiver to receive the modulated carrier signal (page 3, [0041]); a demodulator to extract the digitized analog signal from the modulated carrier signal (page 3, [0046]); a decoder to convert the digitized analog signal to a reproduction of the analog signal (page 3, [0046]-[0047]), using MPEG-4 embedded into the video channel. (Page 3, [0036]).

Oura et al. do not suggest compressing the digitized analog signal using MP-3 and encompassing these and any derivative algorithms as developed under MPEG.

Koyama teaches the use of MPEG-3 and MPEG-4, and particularly using MPEG-4 for advancing the standardization thereof (MPEG-3 for tens Mbit/second of high definition images was absorbed into the MPEG-2) of the coding system for storing color moving pictures (col. 1, lines 35-53).

It would have been obvious to one of ordinary skill in the art that MP-3 is used for audio, and using MPEG-4 instead of MPEG-3 in order to increase image transfer rate and advance the standardization of a coding system for storing color moving pictures. These are known formats for audio and video and one would obviously use the appropriate format for the appropriate type of media.

Regarding claims 2, 3, 11, 12, 23, and 24, Oura et al. teach a frame formatter to divide the compressed digitized analog signal into packets, placing and assembling a number of packets, a bit stuffing circuit to insert bits into any frame (page 4, [0059]-[0061]).

Regarding claims 4, 5, 13, 17, 18, 25, and 26, Oura et al. teach an encoder for re-encoding display video data, permitting a higher quality encoding (page 6, [0091]). Oura et al. do not explicitly suggest encoding the frames to a non-return-to-zero-invert-on-zeros coding. Obviously, non-return-to-zero-invert-on-zeros coding is one of the functions of the encoder.

Regarding claims 6, 7, 19, 27, and 28, Oura et al. teach removing bits inserted, re-encoding into I-Frame and P-Frames, and storing them in the main storage section (page 6, [0086 starting from lines 7]).

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Regarding claims 8, 9, 14, 15, 20, 21, 29, and 30, Oura et al. do not teach the carrier frequency is at least 900 MHz and the ratio of the digitized analog signal to the compressed digitized analog signal is approximately 8:1 to 96:1. The advantage of carrying high frequency for improving quality of audio reproduction of the analog signal is well known.


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 703-305-5451. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

qhn

Quynh H. Nguyen
September 29, 2004


AHMAD MATAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600